

CEDAR CHEMICAL CORPORATION

Helena-West Helena

Public Meeting and Public Hearing



Site Description

- The Site is about 48 acres
- Bordered by Industrial, Rail, and Agricultural Properties
- 6 Process Units
- Offices
- Storage Buildings
- Wastewater Treatment Ponds



Cedar Chemical - 2001

Operational History

- Constructed and Commenced Operations ~1970
- Manufactured Insecticides, Herbicides, Polymers, Organic Intermediates, and other Chemicals.
- Ceased Operations ~2002
- ADEQ assumed control of the Site ~2002

ADEQ ACTIONS

- **2002:** Cedar Chemical Company abandoned the site on October 18, 2002. ADEQ assumed security and maintenance of the plant in October 2002.
- **2003:** ADEQ/EPA Region 6 conducted removal action to empty abandoned production units/labs
- **2004 – 2005:** ADEQ conducted three unsuccessful campaigns to attract a new operator for the plant; no viable offers made.
- **2006:** ADEQ initiates action to institute remedial action for site under RATFA and continues work to attract a new operator for the plant, and files lawsuit against potentially responsible parties
- **2007, March 22:** ADEQ enters into a Settlement Agreement with :
 - Ansul Inc. (Wormald US, Inc.)
 - Helena Chemical Company
 - Exxon Mobile Chemical Company

ADEQ ACTIONS – Review of Reports

- November 2007: Current Conditions Report
 - Summarized available data on groundwater & soil
 - Identified data gaps likely to affect Remedy Selection
- January 2008: Facility Investigation Workplan
 - Scope of Work to address data gaps
- March 2008: Commenced field work (soil and groundwater)
- May 2008: Supplemental Workplan (Proposed New Well Locations)
- October 2008: Facility Investigation Report Submitted [January to July 2008 Investigations]
- June, August, and December 2009: Feasibility Study Reports Submitted

What All Has This Involved?

- Groundwater Well Installation
- Surveying
- Drum Vault Evaluation
- Groundwater Sampling
- Aquifer Testing (Alluvial Aquifer)
- Well Surveys
- Data Evaluation
- Report Preparations/Reviews
- Numerous Site Visits
- ADEQ Estimates that Since 2002 >\$3,000,000 has been spent on Controlling and Investigating the Site

RECOMMENDED REMEDIES IN THE RADD

■ Soils

■ Source Control

- Stabilization (Dinoseb Ponds) using in-situ mixing [extend to top of perched groundwater zone]
- Soil Vapor Extraction [treatment with carbon adsorption or thermal oxidation/acid scrubbing]

■ Exposure Control

- Soil Cover in Process Area (e.g., asphalt)
- Geotextile Line Storm Water Collection Ditch Area; Revegetate
- Institutional Controls (e.g., deed notices; restrictive covenants; industrial use only)

■ Perched Groundwater

- Contaminant Mass Reduction via Pilot Study
- Institutional Controls (e.g., deed notices)

■ Alluvial Groundwater

- In-Situ Enhanced Biodegradation
- Institutional Controls (e.g., deed notices)

RECOMMENDED REMEDIES IN THE RADD

- Wastewater Treatment Ponds
 - Removal of Free Liquids
 - Removal or Stabilization of Sediments/Sludge
 - Regrade the Area
 - Decommission the piping and other ancillary equipment

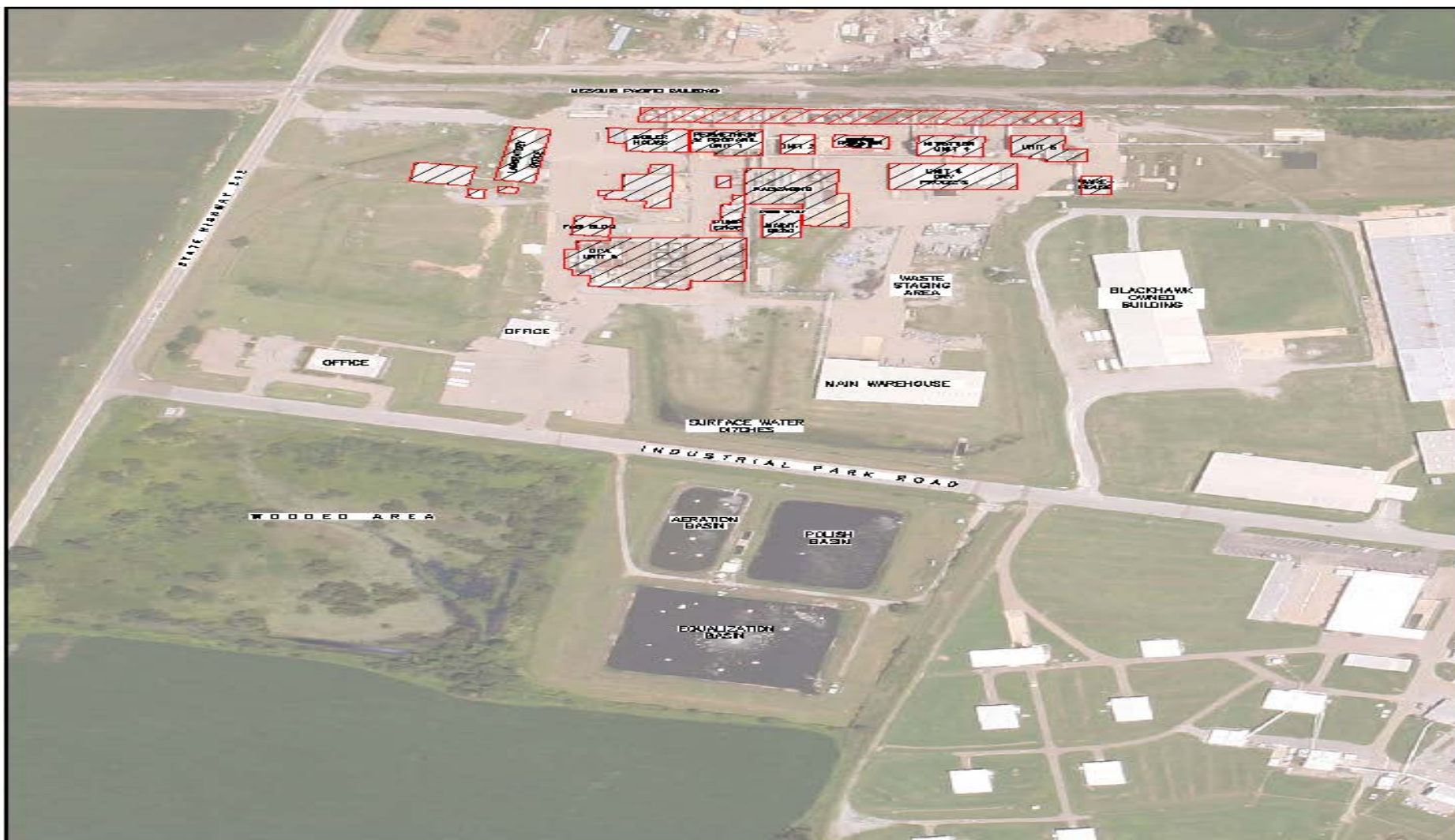
Note: This would be the last thing to be accomplished so that the WWTX system could be used to collect site runoff.

RECOMMENDED REMEDIES IN THE RADD

■ Drum Vault

- Demolition and Removal of Drum Vault Warehouse Building
- Remove Concrete Floor of Warehouse
- Dewater Drum Vault Backfill. [All water will be stored and characterized for appropriate disposal]
- Transfer of Drums or portions of drums and backfill material into lined transport trucks.
- Clean residual drum, waste, or backfill material from Drum Vault
- Backfill Drum Vault with clean, low permeability fill

Note: All Above Ground Portions of Buildings, Process Units, Tank Systems, and related site structures will be demolished or deconstructed.



EXPLANATION

 BUILDINGS AND OTHER STRUCTURES TO BE REMOVED

NOTE: Boundaries, well locations, and remedy elements subject to change based on Remedial Design or other factors.

DEMOLITION OF ON-SITE STRUCTURES



Demolition of On-Site Structures

Cedar Chemical
Helena-West Helena, Arkansas

By: MCS Date: 12/8/09 Project No. 15535

AMEC Geomatrix

Figure 18



EXPLANATION

-  SOIL STABILIZATION AREA
 PROPERTY BOUNDARY

SOIL REMEDY ALTERNATIVES (In Situ)

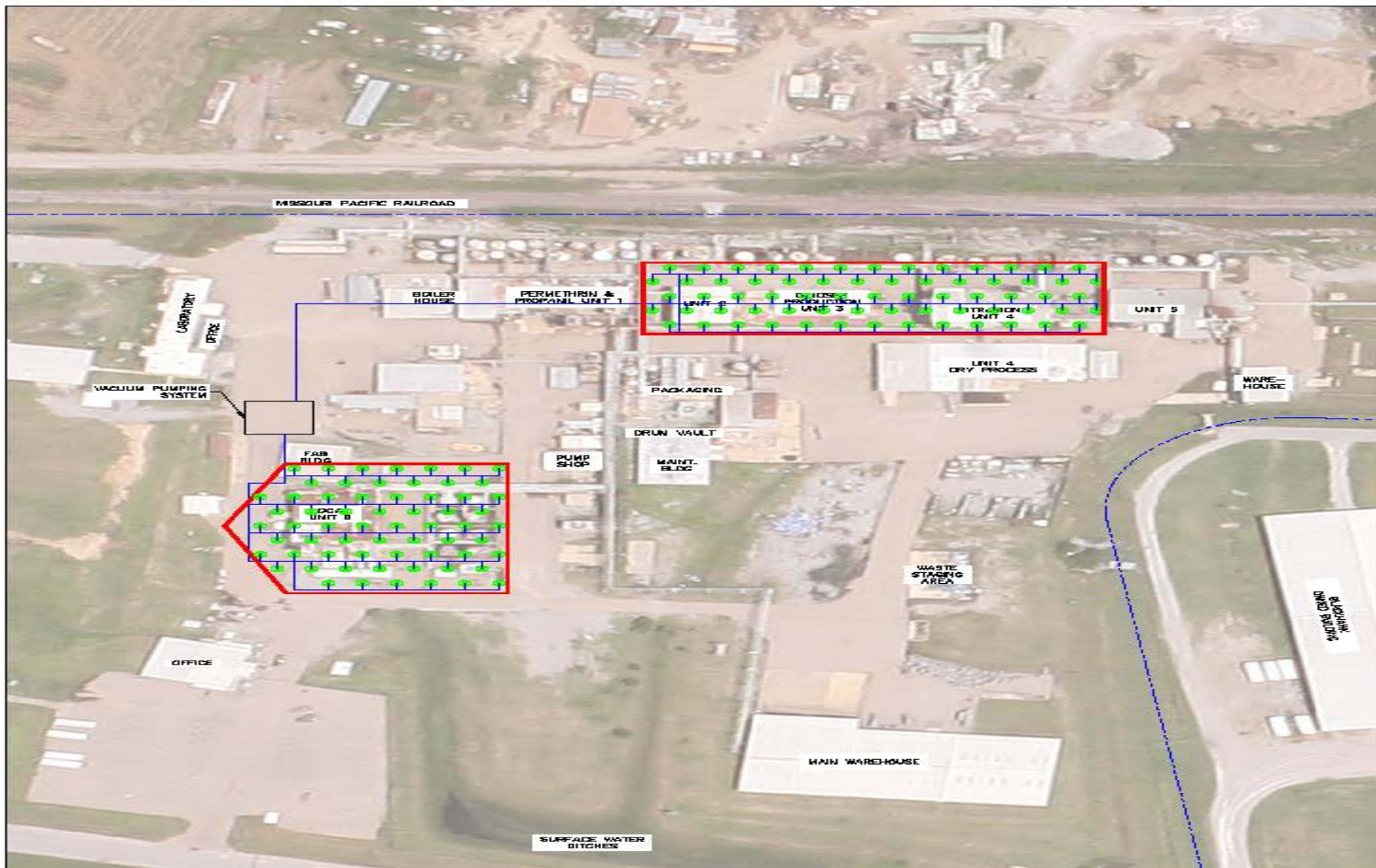


NOTE: Boundaries, well locations, and remedy elements subject to change based on Remedial Design or other factors.

BASEMAP MODIFIED FROM:
Smith & Walling/Cline-Parker Survey, August 2005

SOIL REMEDY ALTERNATIVE S2
In Situ Stabilization Area
Focused Approach
Cedar Chemical
Helena-West Helena, Arkansas

By: BAI	Date: 12/10/08	Project No.: 15858.000
AMEC Geomatrix		Figure 8B



EXPLANATION

- PROPERTY BOUNDARY
- PIPING
- SOIL VAPOR EXTRACTION WELL

NOTE: Boundaries, well locations, and remedy elements subject to change based on Remedial Design or other factors.

SOIL REMEDY ALTERNATIVE (SOIL VAPOR EXTRACTION)

DRAFT



BASEMAP MODIFIED FROM:
Smith & Walling/Cole-Parker Survey, August 2005

SOIL REMEDY ALTERNATIVE S4
Soil Vapor Extraction Area
Focused Approach
Cedar Chemical
Helena-West Helena, Arkansas

By: BAI	Date: 12/10/08	Project No.: 15858-000
AMEC Geomatrix		Figure 10B



EXPLANATION

-  SOIL COVER
-  SOIL / GEOTEKSTILE COVER AREA
-  WASTEWATER TREATMENT POND CLOSURE AREA
-  INSTITUTIONAL CONTROL
-  PROPERTY BOUNDARY

EXPOSURE CONTROL



BASEMAP MODIFIED FROM:
Smith & Walling/Cline-Palmer Survey, August 2005

SOIL REMEDY ALTERNATIVE S1
Exposure Control
Cedar Chemical
Helena-West Helena, Arkansas

By: BAI Date: 12/10/08 Project No. 15958.000

AMEC Geomatrix

Figure 7

NOTE: Boundaries, well locations, and remedy elements subject to change based on Remedial Design or other factors.

WHERE ARE WE NOW?

- Public Notice of the Remedial Action Decision Document (RADD).
- Public Comment Period Closes March 25, 2010.
- Review and consider any comments received during the public comment period and hearing.
- Issue a final RADD

Any Questions?

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